

**Montana Board of Oil and Gas Conservation
Environmental Assessment**

Operator: KeeSun Corporation
Well Name/Number: Keesun #2-2-1-25 Sindelar
Location: (NW NE) Lot 2 Section 2 T1N R25E
County: Yellowstone MT; Field (or Wildcat) Wildcat

Air Quality

(possible concerns)

Long drilling time: No, 4 to 5 days drilling time.

Unusually deep drilling (high horsepower rig): No, small single derrick drilling rig, about 500 HP (Estimated) to drill to 3000' TD.

Possible H₂S gas production: No H₂S anticipated.

In/near Class I air quality area: No not in a Class I air quality area.

Air quality permit for flaring/venting (if productive): Yes, DEQ air quality permit required under 75-2-211.

Mitigation:

☒ Air quality permit (AQB review)

☐ Gas plants/pipelines available for sour gas

☐ Special equipment/procedures requirements

☐ Other: _____

Comments: No special concerns – using small rig to drill to 3000' TD. If there aren't any gas gathering system nearby, associated gas can be flared under Board Rule 36.22.1220.

Water Quality

(possible concerns)

Salt/oil based mud: No, freshwater and freshwater mud system.

High water table: No high water table anticipated.

Surface drainage leads to live water: No, closest drainages are unnamed ephemeral tributary drainages to Five Mile Creek, about ½ of a mile to the south and about 5/8 of a mile to the east from this location.

Water well contamination: No, closest water wells are about ¼ of a mile to the southeast and about 7/8 of a mile to the southwest from this location. Depth of these irrigation wells range from 37' to 40'. Surface hole in this well will be drilled to 350' with freshwater and/or air. Steel surface casing will be run and cemented to surface to protect ground water. (Rule 36.22.1001)

Porous/permeable soils: No, sandy silty bentonitic soils.

Class I stream drainage: No Class I stream drainages.

Mitigation:

☐ Lined reserve pit

☒ Adequate surface casing

☐ Berms/dykes, re-routed drainage

☐ Closed mud system

☐ Off-site disposal of solids/liquids (in approved facility)

☐ Other: _____

Comments: 350' of surface casing cemented to surface adequate to protect freshwater zones (Rule 36.22.1001) Also, fresh water mud systems to be used.

Soils/Vegetation/Land Use

(possible concerns)

Stream crossings: No, stream crossings anticipated.

High erosion potential: No, small cut, up to 7.3' and small fill, up to 3.4', required.

Loss of soil productivity: No, location will be restored after drilling, if nonproductive. If productive unused portion of drillsite will be reclaimed.

Unusually large wellsite: No, 250'X250' location size required.

Damage to improvements: Slight, surface use is a grassland.

Conflict with existing land use/values: Slight

Mitigation

☐ Avoid improvements (topographic tolerance)

☐ Exception location requested

☒ Stockpile topsoil

☐ Stream Crossing Permit (other agency review)

☒ Reclaim unused part of wellsite if productive

☐ Special construction methods to enhance reclamation

☐ Other _____

Comments: Access will be over existing State Highway, #87, county gravel road, Alexander Road and existing private ranch trails. A short access road will be built into this location off an existing ranch trail, about 300' of new road will be into this location. Cuttings will be buried in and unlined earthen pit. Drilling fluids if used will be allowed to dry in the pit. Pits will be backfilled after drying. No special concerns.

Health Hazards/Noise

(possible concerns)

Proximity to public facilities/residences: No residences within a 1 mile radius around this location. The city of Billings, Montana is about 4 miles to the south and southeast from this location. The airport is about 3.5 miles to the southeast from this location.

Possibility of H2S: No H2S anticipated.

Size of rig/length of drilling time: Small drilling rig/short 4 to 5 days drilling time.

Mitigation:

☒ Proper BOP equipment

☐ Topographic sound barriers

☐ H2S contingency and/or evacuation plan

☐ Special equipment/procedures requirements

☐ Other: _____

Comments: Adequate surface casing and operational BOP (3,000 psi annular) should mitigate any problems. (BOP's 3,000 psig annular) Rule 36.22.1014. No concerns

Wildlife/recreation

(possible concerns)

Proximity to sensitive wildlife areas (DFWP identified): None identified.

Proximity to recreation sites: None identified.

Creation of new access to wildlife habitat: No

Conflict with game range/refuge management: No

Threatened or endangered Species: Only species identified as threatened or endangered are the Black-footed Ferret and the Whooping Crane. Candidate species listed are the Sprague's Pipit and the Greater Sage Grouse. NH tracker website lists only ten(10) species of concern as the Townsend's Big-eared Bat, Black-tailed Prairie Dog, Spotted Bat, Burrowing Owl, Greater Sage Grouse, Pinyon Jay, Western Hog Nosed Snake, Milksnake, Greater Short-horned Lizard, and the Common Sagebrush Lizard. NH Tracker website lists one(1) Potential Species of Concern: Eastern Screech Owl.

Mitigation:

- ☐ Avoidance (topographic tolerance/exception)
- ☐ Other agency review (DFWP, federal agencies, DSL)
- ☐ Screening/fencing of pits, drillsite
- ☐ Other: _____

Comments: Private surface grassland. There may be species of concern that maybe impacted by this wellsite. We ask the operator to consult with the surface owner as to what he would like done, if a species of concern is discovered at this location. The Board of Oil & Gas has no jurisdiction over private surface lands.

Historical/Cultural/Paleontological

(possible concerns)

Proximity to known sites: None identified

Mitigation

- ☐ avoidance (topographic tolerance, location exception)
- ☐ other agency review (SHPO, DSL, federal agencies)
- ☐ Other: _____

Comments: Private surface grasslands. There may be possible historical/cultural/paleontological sites that maybe impacted by this wellsite. We ask the operator to consult with the surface owner as to his desires to preserve these sites or not, if they are found during construction of the wellsite. The Board of Oil & Gas has no jurisdiction over private surface lands.

Social/Economic

(possible concerns)

- ☐ Substantial effect on tax base
- ☐ Create demand for new governmental services
- ☐ Population increase or relocation

Comments: No concerns. Wildcat well.

Remarks or Special Concerns for this site

Well is a 3000' Greybull Formation test.

Summary: Evaluation of Impacts and Cumulative effects

No long term impacts expected. Some short term impacts will occur, but can be mitigated.

I conclude that the approval of the subject Notice of Intent to Drill (does/**does not**) constitute a major action of state government significantly affecting the quality of the human environment, and (does/**does not**) require the preparation of an environmental impact statement.

Prepared by (BOGC): /s/ Steven Sasaki
(title:) Chief Field Inspector
Date: May 7, 2013

Other Persons Contacted:

Montana Bureau of Mines and Geology, GWIC website
(Name and Agency)
Toole County water wells.
(subject discussed)
May 7, 2013
(date)

US Fish and Wildlife, Region 6 website
(Name and Agency)
ENDANGERED, THREATENED, PROPOSED AND CANDIDATE SPECIES
MONTANA COUNTIES, Yellowstone County
(subject discussed)
May 7, 2013
(date)

Montana Natural Heritage Program Website (FWP)
(Name and Agency)
Heritage State Rank= S1, S2, S3, T1N R25E
(subject discussed)
May 7, 2013
(date)

If location was inspected before permit approval:
Inspection date: _____
Inspector: _____
Others present during inspection: _____